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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/989,928	11/20/2001	Konstantin I. Boudnik	SUNMP030	1929
25920	7590	06/23/2005	EXAMINER	
MARTINE PENILLA & GENCARELLA, LLP 710 LAKEWAY DRIVE SUITE 200 SUNNYVALE, CA 94085			CHUNG, JI YONG DAVID	
			ART UNIT	PAPER NUMBER
			2143	

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/989,928

Applicant(s)

BOUDNIK ET AL.

Examiner

Ji-Yong D. Chung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/13/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**  
**RESPONSE TO AMENDMENT**

*Response to Remarks*

1. Applicant's arguments and amendments filed on May 13, 2005 have been carefully considered but they are not deemed fully persuasive.

On pages 10-12, Applicants put forth two arguments. First, Applicants explain that the claimed invention can invoke an *application*, whereas Java method can invoke only a method of a Java object. Examiner respectfully disagrees, because (1) java object and method are *java application* and (2) Java methods can invoke non-Java applications. Java can invoke non-java applications via the use of a Java class, java.lang.system. One can create shells and invoke other system calls through the interface provided in the class.

Applicants also state that Applicants' invention can communicate with its invoking agent process during the execution and that Java can only communicate with a remote object at the end of a program execution. Again, Examiner respectfully disagrees. Java's RMI suffers from no such limitation. Consider the following code, which invokes the remote server object, in which the RMI call is presented by dateServer.getDate().

```
import java.rmi.RMISecurityManager;
import java.rmi.Naming;
import java.util.Date;

public class DateClient {
    public static void main (String args[]) throws Exception {
        if (args.length != 1)
            throw new RuntimeException("Syntax: DateClient <hostname>");

        System.setSecurityManager(new RMISecurityManager());
```

```
DateServer dateServer = (DateServer)Naming.lookup("rmi://" +  
                                                    args[0] + "/DateServer");  
  
Date when = dateServer.getDate();  
  
System.out.println(when);  
    }  
}
```

The above example illustrates that a remote call need not be made at the end of the invoking program execution. In the snippet of Java code above, `dateServer.getDate()` is not invoked at the end of the main program, as `System.out.println(when)` is invoked after the remote call.

Note that Applicants' amendment has necessitated new grounds of rejection with respect to the amended claims.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1-4 and 9-13** are rejected under 35 U.S.C. 102(e) as being anticipated by Wollrath et al (U. S. Pat. No. 6,487,607, Wollrath hereinafter).

With regard to **claim 1**, Wollrath discloses method for launching remote applications in a distributed test framework, comprising the operation of:

*launching a first application program having a call interface using a first agent process having an agent launcher interface, wherein the call interface provides a reference to the first agent process such that the first application program and the first agent process communicates with each other during execution* [See step 701, Fig. 7. In RMI environment shown in Fig. 6, a class method (which would use the “first agent process” or method) must call a process that implements RMI interface; Java language requires the protocol. Any invocation of the RMI is performed by, first, referencing the proper class object cast into the interface type and then invoking one of the methods of the interface. Note that starting any program constitutes “launching.” As read “first agent process” is the method as well as the RMI component 602 in Fig. 6 (RMI registry). The communication is made during the execution of rmiregistry];

*sending a launch request from the first application to the agent launcher interface using the reference to the first agent process, wherein the launch request specifies a second application to be launched, and wherein the launch request defines attributes of a processing resource* [See step 703, Fig. 7. In Fig. 6, any class method that invokes RMI would cause the remote class object to load and launch the second application. The RMI call must contain attributes of a processing resource, because proper sequence of calls that locate the second application must be given service the “location” attributes of the processing resource. In other words, RMI service provides the mechanism of remote calls over the network, provided it has information on destination of the call]; and

*launching the second application on a processing resource having the attributes defined in the launch request* [See step 707 in Fig. 7. Properly working RMI call would cause the remote method of loaded class to be executed (“launched”).]

With regard to **claim 2**, Wollrath discloses the second “agent” *executing on the processing resource*. Any Java program that has been started via RMI executes on the remote environment. See step 707, Fig. 7. The server is the processing resource.

With regard to **claim 3**, Wollrath shows *the second agent process that is registered with a look up service, the registering being configured to advertise the attributes of the processing resource*. See step 705, Fig. 7. RMI is an implementation of Java naming service. The second agent process (the remote object) must be registered, in order for its methods to be invoked.

With regard to **claim 4**, generic proxy in Fig. 7 of Wollrath meets the limitation of the claim 4: *“the operation of providing a system controller in communication with the first agent process and the second agent process.”* Generic proxy in Fig. 7 is in communication with the first agent and the second agent.

**Claims 9-13** incorporates all the limitations of claims 1-4, but in apparatus form rather than in method form. The reasons for the rejections of claims 1-4 apply to claims 9-13. Therefore, claim 9-13 are rejected for substantially the same reasons.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 5 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wollrath. It would have been obvious to one skilled in the art at the time of the invention to modify steps disclosed Wollrath for the reasons provided below.

With regard to **claim 5**, Wollrath shows *the system controller that is configured to search the look up service to locate a processing resource having attributes substantially matching the attributes defined in the launch request*. See Fig. 5 for the lookup service.

The motivation for combining the use of lookup service with the steps Fig. 7 is as same as the sole purpose for the existence of the lookup service in Java environment: to locate a particular service. It is obvious to use the lookup service to locate a service, because that is what lookup services are for, whether the calling program is “controller” or “first agent.”

**Claim 14** incorporates all the corresponding limitations of claim 5, but in apparatus form rather than in method form. The reasons for the rejection of claim 5 apply to claim 14. Therefore, claim 14 is rejected for the same reasons.

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6. **Claims 6-8 and 15-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wollrath in view of Jaworski ("Developer's Guide: Java 1.1") and "Process Manager 6.0 Programmer's Guide" (SUN hereinafter). It would have been obvious to one skilled in the art at the time of the invention to combine the features disclosed in Wollrath with those in Jaworski and SUN for the reasons provided below.

With regard to **claim 6**, Wollrath shows the method wherein  
*the second application includes a second call interface.*

Wollrath does not show *the second call interface further includes a parameters hash table that provides initial values for the second application*. Jaworski shows an example of initialization parameters in an example Java program: see the constructor for class Hand on page 63.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use initialization, because the initialization method is a language construct; they are built into Java language itself to be used for setting the parameter values at the start of programs and during the construction of objects. (An analogy may help: one uses a steering wheel of an automobile to steer the car; the steering wheel is built into an automobile for the purpose of guiding the automobile. Incorporating the step of using the steering wheel into the process of controlling the automobile cannot render the control process any less obvious).

Wollrath also does not show passing initialization parameters by using hash table. However, SUN shows on page 5, section 5, how hash table maybe passed as an argument for initialization.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use hash table to pass initialization values to another process, because using the hash table allows one to pass a large body of variable-value pairs, which maybe unknown prior to the execution of the first agent process, in a compact notation.

With regard to **claim 7**, neither Wollrath does not show, but SUN shows that *the agent launcher interface of the first agent process further includes initial parameters that provide initial values for the second application*. Hash table in SUN provides the initial parameters.

With respect to **claim 8**, Wollrath does not show, but SUN shows that *the initial values provided by the initial parameters of the agent launcher interface of the first agent process can be passed to the second call interface via the parameters of the hash table of the second call interface of the second application*. See page 5, section 5. The hash table is used to pass environment variable-value pair (of the calling process) for initialization of environment variables.

**Claims 15-16** contain all the limitations of claims 6-8, but in apparatus form rather than in method form. The reasons for the rejections of claims 6-8 apply to claims 15-16. Therefore, claims 15-16 are rejected for the same reasons.

**Claims 17-18** include software versions of the subset of limitations discussed above in reference to claims 1-8. The reasons for the rejections of claims 1-8 apply to claims 17 and 18. Note that claim 17 cites “attributes of a processing resource are passed to the agent launcher process.” However, the limitation is merely a parameter passing mechanism in Java programming language; it is built into the language. Claims 17-18 are rejected for substantively the same reasons as claims 1-8.

With regard to **claim 19**, it speaks of “*the processing service is selected from a list of processing resources advertised on a lookup service.*” However, the limitation merely describes the function of location resolution in any Java lookup service. That is, when one uses a lookup service in any Java environment, the lookup service selects the requested service that resides on a particular device (selected from a list of multiple devices).

**Claim 20** cites a limitation that is a software version of the limitation cited in claim 2. The reasons for the rejection of claim 19, therefore, apply to claim 20.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ji-Yong D. Chung whose telephone number is (571) 272-7988. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ji-Yong D. Chung  
Patent Examiner  
Art Unit: 2143



**BUNJOB JAROENCHONWANIT**  
**PRIMARY EXAMINER**